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Inaugural Essay

on

Hepatitis.

For the Degree of Doctor of Medicine  
in the University of  
Pennsylvania.

By Samuel P. Byrd  
of  
Virginia.

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## Hepatitis

Knowing my utter inability with the little experience I have had in the practice of medicine to advance any thing new on any subject relative to it, I have determined, merely that I may comply with the rules of this Institution, to select this subject which has been treated of by almost every author, and simply to detail its history, and treatment

Hepatitis has generally been considered of two kinds; the one acute, and the other chronic. First of acute Hepatitis. Both the peritoneal covering, and parenchyma of the liver are subject to acute inflammation.

The symptoms denoting inflammation of the liver, whether of the peritoneal covering, or the substance are the same. Namely, Pyrexia accompanied with pain in the

# Hypocrite

Myself my wife and child with the little nephew  
and the little daughter of the house to whom  
I was a very great subject to my father  
and my mother and I was very much  
in the hands of the little nephew and the  
little daughter of the house and the  
little nephew and the little daughter of the house

Hypocrite for my father  
and my mother and I was very much  
in the hands of the little nephew and the  
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The hypocrite standing in  
the hands of the little nephew and the  
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right hypochondrium, most usually extending to the back, and shoulder of the same side, which is much increased on pressure, a dry cough, difficulty in breathing, and lying, except on the side affected, and sometimes on neither side, nausea and sometimes vomiting of a bilious matter, costiveness, and when stools are procured, they are indicative of the want of the biliary secretion, the urine of a deep saffron colour, and small in quantity, there is a loss of appetite, great thirst, with a strong, hard, and frequent pulse, the skin hot, and dry, the tongue covered with a white fur, and when the disease has continued for several days, the eyes, and skin become tinged with a yellowish colour resembling that of Jaundice.

We do not always, however, find the symptoms of the same degree of violence as are here described, thus in some cases the fever



is very violent, in others scarcely perceptible, in some instances the pain is very acute, in others the disease has gone on to suppuration without any pain being experienced, when the peritoneal covering is inflamed the pain is very acute, when the substance of the liver is the seat of the disease the pain is obtuse.

The appearance of the blood before it coagulates is remarkable, the red globules falling to the bottom, and the fluffy coat not being formed, it appears of a green colour; this is supposed to be owing to the mixture of the bile with the purple coloured venous blood, as yellow, and purple form green.

Causes. They are, besides such as produce inflammations generally, as blows, falls, wounds &c intense heat of the sun, violent exercise, long continued Intermittent, and Remittent fevers, the improper use of ardent spirits, mental anxiety, suppressed sec-

any kind of an other small fragment, or  
any other of the kind is very rare, and  
it is very rare to find a single one without  
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condition. The fact is very rare, and  
the condition of the stone is the best of the  
kind the stone is better.

The appearance of the stone  
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tions, the translation of other diseases, and the derangement of the digestive functions.

**Diagnosis.** In consequence of cough, and difficulty of breathing being symptoms of Acute Hepatitis, it is sometimes mistaken for Pneumonia. It may be distinguished in this way, In the former, the cough is not increased by a long inspiration, and also by the pain extending to the shoulder, and the sallowness of the complexion.

~~retention of medicine~~ The patient being able to retain medicine, and other substances in the stomach without, the immediate rejection of them, and the less prostration of strength will distinguish it from Gastritis.

It may be distinguished from spasm of the gall ducts, by the pain in the former being of a permanent nature, and by the patient being able to lie in a horizontal posture, whereas, in the latter, the pain is of a spasmodic nature,



and the patient is easier when the body is bent on the knees. Some writers (among whom is Dr John Keetham) have endeavoured to make a distinction between the inflammations of the convex, and concave surface of the liver from the symptoms which may occur. They say when the membranous covering of its superior convex part, or the ligaments which unite it to the diaphragm are inflamed, the pain, fever, cough, and difficulty of breathing are much more violent, than when its interior pulpy substance, or its concave inferior part is the seat of the inflammation; which being less nervous, are less susceptible of the morbid cause. For this opinion, Dr Thomas, who has had every opportunity of ascertaining its truth from a long practice in the West Indies (where Hepatitis is a disease of frequent occurrence) says there is no foundation.

Dr Haller supposed that the peritoneal covering of the liver is always the seat of acute Hepatitis, and

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**Prognosis.** This disease is not generally attended with immediately fatal consequences. It is sometimes cured in consequence of a hæmorrhage from the nose or hæmorrhoidal vessels, it sometimes terminates in a diarrhoea, or by an evacuation of urine, depositing a copious sediment. It has been known to cease on the appearance of Erysipelas of the face. The most favorable signs, are the abatement of fever, and pain, an improvement in the complexion, a return of the appetite, and no considerable loss of strength. Intensity of pain, considerable heat, and dryness of skin, thirst, costiveness, and rigors denote approaching suppuration.

**Terminations.** Hepatitis, like other inflammations, may either end in resolution, suppuration, or gangrene. In this country resolution is the most frequent termination, but in warm climates, as in the West Indies, it runs its course

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rapidly, so that if not arrested in its career by Medical aid, it soon terminates in suppuration. That suppuration will take place may be inferred from the pain continuing intense, the pulse full, and hard with rigors, in defiance of our remedies, and when it has actually occurred, there is a sense of weight in the part affected, with throbbing pain together with symptoms of hectic fever, as occasional flushings of the cheek, and night perspirations.

When suppuration has taken place, the further progress of the disease is various. Adhesions sometimes form between the surface of the liver, and parietes of the abdomen. The tumour becomes more, and more prominent, and finally the matter is discharged through an external opening. The situation of such a tumour is generally between the third, and fourth false ribs. If the abscess is apparent, by pressure with the fingers there will be perceived a



fluctuation in the centre, while the circumference remains hard. The colour of the skin will be little changed unless the abscess is very large or the matter which it contains very acid. If there be no adhesions between the parietes of the abdomen, and the liver, and the walls of the abscess are thin, the matter will be discharged into the cavity of the abdomen, bringing on peritoneal inflammation, and as a consequence death. Sometimes the matter finds its way into the colon, and stomach in consequence of adhesions between the liver, and those parts, and is evacuated by stool, or vomiting. Patients have been known to recover after there was reason to believe such an event had taken place. And lastly by erosion of the diaphragm the contents of abscesses have been known to find their way into the cavity of the thorax producing purulent



empyema, and sometimes, but rarely, in consequence of adhesions between the inferior lobe of the lungs, and diaphragm the matter has been discharged along with the bile through the bronchia in the form of bilious expectoration. The termination of Hepatitis in gangrene is a rare occurrence.

On dissecting those who die of acute Hepatitis, the liver is frequently found hard, and indurated, with its membranes altered by inflammation. Adhesions are sometimes found to have taken place between the liver, and neighbouring parts.

In the treatment of acute Hepatitis, as its progress to suppuration is very rapid, the general means of obviating inflammation should be rigidly enforced by strictly employing the antiphlogistic regimen. After general, and copious bleeding, the most early





recourse should be had to depletion from the part by means of cups over the region of the liver, together with warm fomentations. Should no material relief be obtained in the course of a few hours from this treatment, general bleeding must again be had recourse to, to an extent proportioned to the urgency of the case, and strength of the patient.

Purging seems to be a means peculiarly adapted for diminishing inflammation of the liver. By increasing the secretions of the alimentary canal, it has been supposed, that congestion of blood in the Vena Portarum, and consequent distension of the liver may be, to a certain extent, lessened, or prevented. For this purpose Calomel is the best purgative from the peculiar power it possesses of ~~is~~ increasing the secretions of the liver. Large doses should be given over night, to the amount of



15 or 20 grains, to be purged off the next morning by some saline purgatives, as the Glauber or Epsom salts.

After the symptoms have been sufficiently reduced by these means, a large blister should be applied over the region of the liver; if it heals up before the desired effect is obtained, it should be repeated. As auxiliary means, after inflammatory action has been reduced by the previous treatment, small doses of Antimony and Nitric in the form of Nitrous powders may be given for the purpose of determining to the surface.

If the disease does not give way in the course of five or six days by these means, we must call in the aid of mercury. A slight ptyalism will be sufficient, kept up for some time. It may be



excited by rubbing into the side every day a drachm of the Mercurial ointment, or by giving a grain of Calomel every morning and evening, or four grains of the blue pill three times a day, at the same time continuing the punctions if we wish to produce the salivation rapidly. The disease sometimes yields as soon as the salivation takes place, at others, it is necessary to continue it for some time.

Some practitioners are in the habit of employing Mercury in the first stage of this disease with the intention of producing salivation, but I believe this practice is discountenanced in this country as highly pernicious. It is very difficult to produce salivation in the first stage of any inflammatory disease, and the action of the metal when given with such intention, instead of diminishing

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is not a simple matter, but a complex one, involving many factors, and the result is often a surprise. The first step is to identify the problem, and then to determine the cause. This is often done by a process of elimination, where the most likely causes are ruled out one by one. Once the cause is identified, the next step is to develop a plan of action, and then to implement it. This is often done by a process of trial and error, where different solutions are tried until the best one is found. The final step is to evaluate the results, and to make any necessary adjustments. This is often done by a process of reflection, where the results are compared to the original goals, and any differences are noted. The process is then repeated, until the problem is solved.

ing, generally increases the inflammatory action, and thereby renders the use of the lancet, and other depleting means more necessary. The whole of the antiphlogistic regimen should be pursued. The diet should be of the mildest kind, as sage, arrow root, Tapioca, and gruels, carefully avoiding all animal food. The thirst should be assuaged by cooling drinks, impregnated with vegetable acids, the apartment of the sick should be kept cool, and the bowels during convalescence opened occasionally by the use of some mild aperient.

When the remedies which have been recommended have failed to produce the desired effect, and suppuration has ensued, we should endeavour to promote the formation of a proper pus, and the discharge of the abscess externally. For this purpose a nourishing diet, together





with the free use of Tonics, (as the Peruvian bark  
and the Mineral acids) and a moderate quan-  
tity of wine should be recommended. An  
emollient poultice should be kept constantly  
applied over the part untill the tumour  
points, and an evident fluctuation can  
be perceived; when it should be immedi-  
ately opened. This is best done by dissecting  
through the integuments in the most impene-  
ding position down to the abscess with a  
scalpel, and then piercing it with a troi-  
car, which is preferable to the lancet, in  
as much as, we have it in our power by  
these means to let off the contents gradually  
and slowly: To facilitate the discharge of  
the matter, the patient should be placed  
in a favourable position, and a roller  
should be applied around his abdomen.  
After this simple dressing will be necessary



ry. To prevent the lips of the wound from  
healing before the internal parts, it is proper  
that lint dipped in some mild oil should  
be placed in them. In the mean time  
the strength of the patient should be  
supported by a nourishing diet, Tonics, and  
mild exercise, if he be able to bear it.  
His bowels should be kept open by mild  
aperient Medicines, and vicissitudes of  
weather should be carefully avoided.

### Chronic Hepatitis.

This form of the disease is most commonly  
the sequel of the acute, but occurs sometimes  
as an original disease.

The symptoms of chro-  
nic Hepatitis are loss of appetite, lowness of  
spirits, a sense of weight in the right side,  
the skin, and adnata of the eyes of a yellow

to prevent the spread of the disease from  
existing before the internal point it is prop-  
er that the patient in some cases will not  
be allowed to return to the open air  
the strength of the patient should be  
supported by a nourishing diet and  
the disease is to be treated by  
the means which are best adapted to  
the patient's condition, and the  
disease should be carefully avoided.

*Chlorosis Hepatica*  
The form of the disease is most common  
the signs of the disease, but more or less  
of the disease is common.  
The symptoms of the  
disease are loss of appetite, loss of  
weight, a sense of weight in the right side,  
the skin, and other signs of the disease.

colour, the bowels ~~soft~~ <sup>costive</sup>, the stools of a clay colour, the urine high coloured, and depositing a pink sediment, together with symptoms of Dyspepsia, as anxiety, and cramps in the stomach, flatulency, and indigestion. The pulse is most commonly quick, and chordee. All these symptoms are sometimes so moderate, as scarcely to be noticed by the patient himself, even hepatic abscesses have been discovered on dissection which had given no inconvenience during life, nor were even suspected to exist, though such abscesses must have been the consequence of previous, and progressive inflammation. It notwithstanding the presence of these symptoms, or if they should be so obscure as to throw any doubt on the nature of the disease, it will be best to make an examination; which may be done by requesting the patient



to lie on his back with his knees drawn up, and at the same time to take a full inspiration, when the physician will be enabled to detect any enlargement, if such should exist. But this will not always throw light on the nature of the disease, because it may be diseased without being enlarged, or if it be enlarged, it may be either from scirrhus, tubercles, abscesses, or a more morbid growth, between which it will be impossible to distinguish by a mere examination.

The causes of chronic Hepatitis are the same as those of the acute.

- the extravagant use of ardent spirits, to which the inhabitants of Southern climates are addicted is one of the most frequent causes of it.
- the abuse of Mercury, and premature use of tonics in the treatment of our autumnal fevers is also a frequent cause of ~~our~~ chronic Hepatitis.

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On dissections after death the most common appearances, are enlargements of the liver without any alteration of structure, abscesses are occasionally met with in the substance of the liver, but one of the most frequent occurrences is the formation of tubercles. Hydatids have been met with both in the substance of the liver, and on its exterior covering, and in some few instances the liver has been found to have been entirely destroyed, leaving its vessels alone.

A patient may survive a long time with this disease, but in most cases it sooner, or later terminates in dropsy, which almost always proves fatal. Our prognosis should therefore be guarded, particularly in persons advanced in years. The probability of success will depend on the extent of <sup>the</sup> morbid derangement which the structure of the liver has undergone, and the constitution of the patient.



If when first called to a patient labouring under this disease we have no reason to believe any organic derangement has taken place, it will be best to commence the treatment with frequent, small, and repeated bleedings, (about six ounces should be taken daily) at the same time the bowels should be kept constantly open by Calomel, or the blue pill, and some neutral salt. Six grains of the blue pill may be given every night to be purged off the next morning by a dose of Epsom salts. If there is any local uneasiness a few cups may be applied, and afterwards the frequent application of blisters will be very useful. When the liver has been much enlarged, a plaster of Ammoniacum spread largely over the surface is recommended. The dandelion has been highly spoken of as a diobstruent, in the treatment of this disease. It should be given in the dose



of half a drachm of the extract, or ten or fifteen grains of the powder twice a day. If after having employed these means for some time, and no relief is obtained, we may reasonably suppose that there exists some organic derangement, and in this event, an alterative course of Mercury will be highly useful. It should be continued for some time. If the stomach of the patient should be so very irritable as not to enable him to retain the medicine, it may be administered by rubbing into the side a half drachm of the ointment daily.

In this stage of the disease the Nitro Muriatic acid has been highly recommended, given both internally, and externally in the form of a bath. As much as two drachms of the acid greatly diluted may be taken during the day. It should be sucked through a quill, and the mouth carefully washed, as



it is apt to injure the teeth when applied to them. The bath should be acid to the taste. In persons of a scrofulic habit, where Mercury would be highly improper, this may be a very valuable remedy.

Particular attention should be paid to the condition of the skin, the patient should wear flannel next to his skin, moderate exercise may be allowed taking care the patient does not expose himself to the vicissitudes of the weather. Frictions with the flesh brush over the region of the liver will be found to excite greatly the actions of the biliary secretion.

The diet should be light, and nutritious, and it may be gradually improved by the addition of soups, broths, and light animal food. All spirituous and malt liquors should be avoided, and if

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wine: he allowed, it should be diluted, and given in small quantities.

If these means should fail, we may recommend a trip to the Sulphur Springs of Virginia, which have proved in many cases highly beneficial to persons affected with liver complaints, taking care that the system be first prepared, and all phlogosis subdued, or else the tonic <sup>power</sup> effects of these waters will be pernicious, instead of producing the desired effect.

There is another form of this disease which consists merely in an enlargement of the liver, with little or no phlogosis. It generally occurs to persons in miasmatic countries, and is the consequence of ill cured Intermittent, and other autumnal diseases. Such affections are commonly termed ague cakes. There is little, or no fever present, the skin is dry, and of an orange



a brown colour, the stools are clay coloured, the integuments are loose, and flabby, there is a disposition to oedema of the lower extremities, and a sense of weight in the region of the liver.

A removal to a higher, and more healthy situation will be the best means of effecting a cure, but with regard to those, who from particular circumstances cannot leave their homes, we must resort to Mercury as the best means of cure. It may be given in small doses several times during the day until the mouth is slightly affected. If from any cause it cannot be given internally, its external application may be substituted in the form of inunction, rubbing into the groins a scruple of the ointment every day. Mercury, however, has been employed in many cases of these enlargements unsuccessfully, which were of=



towards removed by other remedies, in which  
case the Cicuta may be tried; several cases  
of enlarged liver which had resisted the  
use of Mercury, and were afterwards cured  
by the Cicuta are recorded by Dr Charles  
Griffith in a work on Hepatitis, and other  
Bilious diseases. This form of the disease  
is very apt to terminate in dropsy.



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Ch

295 Market.

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